

What is claimed is:

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Q27
1. A vascular introducer for insertion into a vascular access device comprising:
- an elongated shaft having a distal end and a proximal insertion end;
- an anchoring mechanism that resides within the elongated shaft when the anchoring
- 5 mechanism is in a retracted position and extends beyond the proximal insertion end of the elongated shaft and engages an inner surface of the vascular access device when the anchoring mechanism is in an extended position; and
- an activation mechanism that moves the anchoring mechanism from the retracted position to the extended position.
2. The vascular introducer of claim 1, wherein the vascular access device is a graft, a fistula, a vessel or an access port.
3. The vascular introducer of claim 1, wherein the extended position of the anchoring mechanism maintains contact between the vascular introducer and the vascular access device to prevent removal or detachment of the vascular introducer from the vascular access device.
- 15 4. The vascular introducer of claim 1, further comprising a rotation mechanism that allows the vascular introducer to change direction within the vascular access device without being removed from the vascular access device.
- 20 5. The vascular introducer of claim 1, wherein an ultrasonic probe <sup>\*</sup> can be inserted through the vascular introducer into the vascular access device for ablation of a debris in the vascular access device.

6. The vascular introducer of claim 5, wherein the debris is any material causing a blockage, an occlusion or a stenosis of the vascular access device.

7. The vascular introducer of claim 5, wherein the ultrasonic probe ablates the debris by emitting ultrasonic energy.

8. The vascular introducer of claim 1, wherein the vascular introducer is for a single use on a single patient.

9. A vascular introducer for access to a vascular system of a mammal through a vascular access device comprising:

an elongated shaft having a wall of sufficient strength to penetrate through a surface of the vascular access device;

at least one anchor that maintains contact between the vascular introducer and the vascular access device to prevent removal or detachment of the vascular introducer from the vascular access device; and

a rotation means that allows the vascular introducer to change direction within the vascular access device without being removed from the vascular access device.

10. The vascular introducer of claim 9, wherein the vascular access device is a graft, a fistula, a vessel or an access port.

11. The vascular introducer of claim 9, wherein at least one anchor is movable between a retracted position where at least one anchor resides within the elongated shaft and an extended

position where at least one anchor extends beyond a proximal insertion end of the elongated shaft and engages an inner surface of the vascular access device.

12. The vascular introducer of claim 11, further comprising an activation mechanism that moves at least one anchor from the retracted position to the extended position.

13. The vascular introducer of claim 9, wherein an ultrasonic probe can be inserted through the vascular introducer into the vascular access device for ablation of a debris in the vascular access device.

14. The vascular introducer of claim 13, wherein the debris is any material causing a blockage, an occlusion or a stenosis of the vascular access device.

15. The vascular introducer of claim 13, wherein the ultrasonic probe ablates the debris by emitting ultrasonic energy.

16. The vascular introducer of claim 9, wherein the vascular introducer is for a single use on a single patient.

17. A method of clearing a debris from a vascular access device comprising:

placing a vascular introducer into the vascular access device;

inserting an ultrasonic probe through the vascular introducer and into the vascular access device; and

ablating the debris in the vascular access device using the ultrasonic probe;

whereby the vascular introducer need not be removed from the vascular access device while the ultrasonic probe is ablating the debris.

18. The method of claim 17, wherein the vascular access device is a graft, a fistula, a vessel or an access port.

19. The method of claim 17, wherein the debris is any material causing a blockage, an occlusion or a stenosis of the vascular access device.

20. The method of claim 17, wherein the ultrasonic probe ablates the debris by emitting ultrasonic energy.

21. The method of claim 17, further comprising rotating the vascular introducer to change direction and an area of ablation of the ultrasonic probe within the vascular access device without removing the vascular introducer from the vascular access device.

22. The method of claim 17, wherein at least one anchor maintains contact between the vascular introducer and the vascular access device to prevent removal or detachment of the vascular introducer from the vascular access device.

23. The method of claim 17, wherein at least one anchor is movable between a retracted position where at least one anchor resides within the vascular introducer and an extended position where at least one anchor extends beyond a proximal insertion end of the vascular introducer and engages an inner surface of the vascular access device.

24. The method of claim 23, wherein an activation mechanism moves at least one anchor from the retracted position to the extended position.

25. The method of claim 17, wherein the vascular introducer is for a single use on a single patient.

26. A method of using a vascular introducer with an ultrasonic probe to remove a debris from a graft, a fistula, a vessel, a port, or other device providing vascular access comprising:

5 positioning a proximal insertion end of the vascular introducer into the device providing vascular access;

inserting the ultrasonic probe through the vascular introducer and into the device providing vascular access;

removing the debris in the device providing vascular access using an ultrasonic energy emitted from the ultrasonic probe; and

rotating the vascular introducer within the device providing vascular access to change a direction of the ultrasonic energy emitted from the ultrasonic probe without removing the vascular introducer from the device providing vascular access.

27. The method of claim 26, wherein the debris is any material causing a blockage, an occlusion or a stenosis of the device providing vascular access.

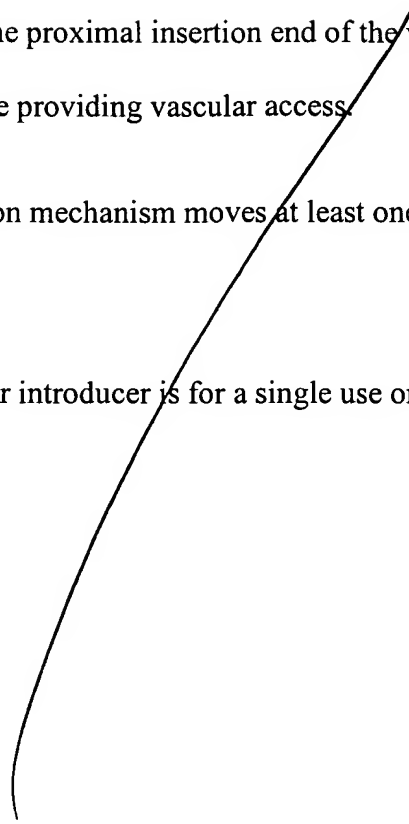
28. The method of claim 26, wherein at least one anchor maintains contact between the vascular introducer and the device providing vascular access to prevent removal or detachment of the vascular introducer from the device providing vascular access.

29. The method of claim 26, wherein at least one anchor is movable between a retracted position where at least one anchor resides within the vascular introducer and an extended

position where at least one anchor extends beyond the proximal insertion end of the vascular introducer and engages an inner surface of the device providing vascular access.

30. The method of claim 29, wherein an activation mechanism moves at least one anchor from the retracted position to the extended position.

5 31. The method of claim 26, wherein the vascular introducer is for a single use on a single patient.



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